

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Canceled)
2. (Currently amended) A radial power divider/combiner comprising:
 - a base having a center and a periphery;
 - a first ~~substrate~~ monopole antenna disposed at the center of the ~~substrate~~ base;
 - a plurality of waveguides, each of which extends along a respective direction between the center of the ~~substrate~~ base and the periphery thereof; and
 - a plurality of second ~~substrate~~ monopole antennas, each said second antenna disposed near a respective ~~substrate~~ peripheral end of a respective one of the waveguides,
 - wherein the waveguides comprise respective grooves in the base, said grooves being adapted to carry signals between the first antenna and the second antennas, and wherein adjacent waveguides are separated by respective wedge portions defined by the base, each said wedge portion having a pointed vertex at a respective end thereof proximate the center of the base.
3. (Currently amended) The radial power divider/combiner of claim 2, wherein the first antenna extends ~~in a first direction~~ from the ~~substrate~~ base in a first direction that is generally perpendicular to the base and the second antennas extend in the first direction from the ~~substrate~~ base.
4. (Currently amended) The radial power divider/combiner of claim 2, further comprising a cover secured to the ~~substrate~~ base, wherein the first antenna extends ~~in a first direction~~ from the ~~first-substrate~~ base in a first direction that is generally perpendicular to the base and the second antennas extend ~~in a second direction~~ from the cover in a second direction that is generally perpendicular to the cover.

5. (Currently amended) The radial power divider/combiner of claim 4, wherein the ~~substrate~~ base and the cover define an interior region of the divider/combiner, and wherein the first antenna and the second antennas extend into the interior region of the divider/combiner.

6. (Canceled)

7. (Previously presented) The radial power divider/combiner of claim 2, wherein the first antenna is adapted to receive a signal and transmit the received signal through the waveguides to the second antennas.

8. (Previously presented) The radial power divider/combiner of claim 2, wherein each of the second antennas is adapted to receive a respective signal transmitted through the respective one of the waveguides.

9. (Currently amended) The radial power divider/combiner of claim 8, wherein each of the second antennas is electrically coupled to a respective amplifier, and is adapted to provide the respective received ~~signal~~ signals to the respective ~~amplifier~~ amplifiers.

10. (Previously presented) The radial power divider/combiner of claim 2, wherein each of the second antennas is adapted to transmit a respective signal through the waveguides to the first antenna.

11. (Currently amended) The radial power divider/combiner of claim 10, wherein each of the second antennas is electrically coupled to a respective amplifier, and is adapted to receive the respective ~~signal~~ signals from the respective ~~amplifier~~ amplifiers.

12. (Currently amended) A radial power divider-combiner comprising:
a radial power divider comprising:
a first ~~substrate~~ base having a center and a periphery;
a first monopole antenna disposed at the center of the first ~~substrate~~ base;

a first plurality of waveguides, each of which extends along a respective direction between the center of the first ~~substrate base~~ base and to the periphery thereof; and

a plurality of second monopole antennas, each said second antenna disposed near a respective peripheral end of a respective one of the first plurality of waveguides; and

a radial power combiner comprising:

a second ~~substrate base~~ base having a center and a periphery;

a third monopole antenna disposed at the center of the second ~~substrate base~~ base;

a second plurality of waveguides, each of which extends along a respective direction between the center of the second ~~substrate base~~ base and to the periphery thereof; and

a plurality of fourth monopole antennas, each said fourth antenna disposed near a respective peripheral end of a respective one of the second plurality of waveguides.

13. (Previously presented) The radial power divider-combiner of claim 12, further comprising a plurality of power amplifiers, each said power amplifier electrically coupled between a respective one of the second antennas and a respective one of the fourth antennas.

14. (Previously presented) The radial power divider-combiner of claim 12, wherein the first antenna is adapted to receive a signal and transmit the received signal through the first plurality of waveguides to the second antennas.

15. (Previously presented) The radial power divider-combiner of claim 12, wherein each of the second antennas is adapted to receive a respective signal transmitted through the respective one of the first plurality of waveguides.

16. (Previously presented) The radial power divider-combiner of claim 13, wherein each of the second antennas is adapted to receive a respective signal transmitted through the respective one of the first plurality of waveguides, and to provide the respective received signal to the respective amplifier.

17. (Previously presented) The radial power divider-combiner of claim 12, wherein each of the fourth antennas is adapted to transmit a respective signal through the respective one of the second plurality of waveguides to the third antenna.

18. (Previously presented) The radial power divider-combiner of claim 13, wherein each of the fourth antennas is adapted to receive a respective signal from the respective amplifier and to transmit the respective signal through the respective one of the second plurality of waveguides to the third antenna.

19. (Currently amended) A solid-state power-amplifier module comprising:

a radial power divider comprising:

a first ~~substrate~~ base having a center and a periphery;

a first monopole antenna disposed at the center of the first ~~substrate~~ base;

a first plurality of waveguides, each of which extends along a respective direction between the center of the first ~~substrate~~ base and to the periphery thereof; and

a plurality of second monopole antennas, each said second antenna disposed near a respective peripheral end of a respective one of the first plurality of waveguides; and

a radial power combiner comprising:

a second ~~substrate~~ base having a center and a periphery;

a third monopole antenna disposed at the center of the second ~~substrate~~ base;

a second plurality of waveguides, each of which extends along a respective direction between the center of the second ~~substrate~~ base and to the periphery thereof; and

a plurality of fourth monopole antennas, each said fourth antenna disposed near a respective end of a respective one of the second plurality of waveguides;

a plurality of power amplifiers, each said power amplifier electrically coupled between a respective one of the second antennas and a respective one of the fourth antennas;

a signal generator that provides an input signal to the first antenna; and

a signal receiver that receives an amplified signal from the third antenna.